



## ISCO & THE ISCO NEWSLETTER

The International Spill Control Organization, a not-for-profit organization dedicated to raising worldwide preparedness & co-operation in response to oil and chemical spills, marine & freshwater pollution by plastics, promoting technical development and professional competency, & to providing a focus for making the knowledge and experience of spill control professionals available to Intergovernmental, Governmental, NGO's and interested groups and individuals. ISCO holds consultative status at the International Maritime Organisation & observer Status at the International Oil Pollution Compensation Fund

### ISCO EXECUTIVE COMMITTEE

Members of the Executive Committee who act as the INTERIM EXECUTIVE (Acting in lieu of President, and as Members of SECRETARIAT (Core Management Team)

- Mr John McMurtrie, VP and Editor (UK)
- Ms Mary Ann Dagleish, VP M'ship (USA)
- Mr John Wordrop (Australia)

Other Members of Executive Committee who also act as members of the SECRETARIAT

- Captain Bill Boyle (UK)
- Mr Marc Shaye (USA)
- Mr Michael Watson (UK)

Other Members of the EXECUTIVE COMMITTEE

- Mr Kerem Kemerli (Turkiye)
- Mr Dan Sheehan (USA)
- Mr Matthew Sommerville (UK)
- Mr Neil Marson (UK)
- Ms Helena Rowland (USA)
- Dr Larissa Montas (USA)
- Capt. D C Sekhar (India)
- Dr Mervyn Fingas (Canada)
- Ms Jane Delgado (USA)
- Mr Carlos Sagrera (Panama)
- Mr Ed Levine (USA)
- Mr Rupert Bravery (UK)

### COUNCIL (NATIONAL REPRESENTATIVES)

- Mr John Wardrop (Australia)
- Mr Elkhann Mamedov (Azerbaijan)
- Dr Merv Fingas (Canada)
- Captain D. C. Sekhar (India)
- Mr Uri Philippin (Israel)
- Mr Sanjay Gandhi (Kenya)
- Mr Dennis van der Veen (Netherlands)
- Mr Carlos Sagrera (Panama)
- Mrs Fatima B. Shaik (South Africa)
- Dr Ali Saeed Al Ameri (UAE)
- Mr Flavio P. de Andrade (Brazil)
- Mr Kerem Kemerli (Turkiye)
- Mr Wu Yue (China)

## INTERNATIONAL NEWS

PLEASE CLICK ON THE BANNER BELOW FOR MORE INFORMATION



### IMO ASSEMBLY ELECTS NEW 40-MEMBER COUNCIL

The Assembly of the International Maritime Organization has elected the Members of its Council for the 2024-2025 biennium. IMO / [Read more](#)

### IMO EXPRESSES "GRAVE CONCERN" AS IT MOVES TO REIN IN SHADOW FLEET TANKERS

The International Maritime Organization took aim at the growing "shadow fleet" of tankers calling the ships operating outside international regulation often without insurance a "grave concern" to environmental safety as well as the welfare of crews and coastal states. The actions came as individual nations continue to target the illegally operating ships while the U.S. is increasingly using sanctions in its effort to halt the illegal and dangerous trade. The Maritime Executive / [Read more](#)

### JOINT STATEMENT ON DONORS' PLEDGE OF \$174.2 MILLION AND CONFIRMATION OF SUPPORT TO THE LEAST DEVELOPED COUNTRIES FUND AND SPECIAL CLIMATE CHANGE FUND

The text of the following statement was released by the Governments of Belgium, Canada, France, Germany, Norway, Spain, Sweden, and the United Kingdom.

Today (4<sup>th</sup> December) in Dubai, we announce contributions totaling \$141.74 million[1] from six countries to the Least Developed Countries Fund (LDCF) and \$32.5 million from 3 countries for the Special Climate Change Fund (SCCF), hosted by the Global Environment Facility (GEF). Additional countries expressed their strong political support to the two climate adaptation funds, with several in the process of securing resources for later contributions. The GEF / [Read more](#)

## REGIONAL NEWS

### N. E. ATLANTIC - COORDINATION OF BIODIVERSITY MONITORING AND ASSESSMENT

OSPAR's group on Coordination of Biodiversity Monitoring and Assessment met in Peterborough (United Kingdom) from 28-30 November 2023. The meeting was convened by Richard Emmerson (Sweden) and Ian Mitchell (UK). The group spent some time reviewing progress with some of the OSPAR North-East Atlantic

## ISCO AMBASSADORS

(Members with special responsibilities in specified geographical areas)

Carlos Sagrera Latin America (Spanish speaking)  
Matthew Sommerville UK London  
John Noble UK London & South'ton  
Flavio P. de Andrade Brazil


## MEMBERSHIP OF ISCO

[Benefits of Membership](#)

[Online Membership Application Form](#)

YOU ARE INVITED TO JOIN THE ISCO  
DISCUSSION GROUP ON LINKED-IN

**Linked in** More than 6,000 polluted sites  
fester across Amazonian countries Click on  
the link below –  
<https://www.linkedin.com/groups/4016064/>

ISCO'S FACEBOOK GROUP   
Click on the link -  
<https://www.facebook.com/groups/388528312842431>

WHATSAPP GROUP FOR STUDENTS, TRAINEES  
& APPRENTICES  
Here is the link for joining this group –  
<https://chat.whatsapp.com/KMxdW7IEal79namyNibVqq>

ADVANCE YOUR CAREER BY GAINING  
PROFESSIONAL RECOGNITION Professional  
recognition is a visible mark of quality,  
competence and commitment, and can give  
you a significant advantage in today's  
competitive environment. All who have the  
relevant qualifications and the required level  
of experience can apply for Professional  
Membership of ISCO. The organization offers  
independent validation and integrity. Each  
grade of membership reflects an individual's  
professional training, experience and  
qualifications. You can apply for MEMBERSHIP  
(MISCO) or FELLOWSHIP (FISCO)

[About Professional Membership](#)

[Professional Membership Application Form](#)

from Bermuda, which included representatives from DENR, the RBR Coast Guard, the Department of Parks and Keep Bermuda Beautiful [KBB] and eight participants from other Overseas Territories, including Cayman, BVI, Anguilla, and Turks and Caicos.  
Bernews / [Read more](#)

## CHILE WAS RE-ELECTED AS PART OF THE COUNCIL OF THE IMO

December 1 - The joint campaign led by the Chilean Ministry of Foreign Affairs and the General Directorate of Maritime Territory and Merchant Marine (Directemar), allowed our country to obtain the necessary votes to be part of the Council along with 19 other countries within Category C. Within the framework of the XXXIII General Assembly of the International Maritime Organization (IMO), held in the city of London, a delegation from our country, led by the Director of Multilateral Affairs of the Ministry of Foreign Affairs, Ambassador Carla Serazzi and together with her the Director General of the Maritime Territory and Merchant Marine, Vice Admiral Fernando Cabrera, participated in the election of the IMO Council for the period 2024-2025 Directemar / [Read more](#)



## REGIONAL NEWS (CONTINUED)

Environment Strategy (NEAES) 2030 Implementation tasks, including the developing Regional Action Plans on marine birds and benthic shelf habitats, and spent some time mapping the links between COBAM's work and the NEAES 2030 Tasks. OSPAR / [Read more](#)

## NEWS FROM AROUND THE WORLD

### AUSTRALIA PROUDLY RE-ELECTED TO IMO COUNCIL

December 1 - Australia is delighted to have been re-elected to Category B of the International Maritime Organization (IMO) Council for 2024-25.  
AMSA / [Read more](#)

### AUSTRALIA: FUTURE EMERGENCY RESPONSE VESSEL SECURED FOR TORRES STRAIT AND GREAT BARRIER REEF

December 6 - With the signing of a contract, the Australian Maritime Safety Authority (AMSA) has secured an enhanced future first response capability to protect the marine environment and mariners in the Torres Strait and Great Barrier Reef. Smit Lamnalco, a world leader in marine towage and support services, and an employer of 340 Australian seafarers and shoreside workers, will provide that enhanced capability from July 2024, after the current contract ends. AMSA / [Read more](#)

### BERMUDA: DENR HOST COURSE ON CLEANING UP OIL SPILLS



December 4 - The Pollution Control Section of the Department of Environment & Natural Resources [DENR] recently hosted a course for the Bermuda Government, KBB, and colleagues from four UK Overseas Territories in the Caribbean on how to clean a shoreline oil spill. "There were 13 participants

from Bermuda, which included representatives from DENR, the RBR Coast Guard, the Department of Parks and Keep Bermuda Beautiful [KBB] and eight participants from other Overseas Territories, including Cayman, BVI, Anguilla, and Turks and Caicos.

Bernews / [Read more](#)

### CHILE: THE CHILEAN AND PERUVIAN NAVIES TRAINED THEIR CAPABILITIES IN THE FACE OF ENVIRONMENTAL EMERGENCIES AND THE SAFEGUARDING OF HUMAN LIFE AT SEA

December 1 - On the morning of Wednesday, November 22, the Peruvian Navy ship "Río Piura" arrived at the Port of Arica, with 36 sailors, who participated in the twentieth version of the "Neptuno" exercise.

The combined exercise "Neptune" was developed within the framework of the fourth Bilateral Meeting of Maritime Border Authorities, in which units belonging to the Maritime Government of Arica participated together with the ship "Río Piura" of the Peruvian Navy, and its main objective was to increase the exchange of experiences and strengthen training to face emergencies of large proportions in the best possible way. such as the oil spill and the safeguarding of human life at sea. Directemar / [Read more](#)

### FINLAND: ENABLING CIRCULAR ECONOMY FOR PLASTICS: NOVEL APPROACHES TO PRODUCT DESIGN AND LOGISTICS

December 7 - Embarking on the Circular Economy for Plastics prompts a reevaluation of the plastic lifecycle, one step at a time. In Finland, multiple initiatives are underway, forging pathways to scrutinize the entire lifecycle of plastic and shake up existing systems. Beyond sorting, collection, and recycling of plastics, additional measures are crucial to foster a sustainable circular economy.

Themes of product design and logistical solutions were explored on November 27th in a seminar organized by the PlastLIFE project and the SPIRIT programme, aimed at advancing the circular economy for plastics. Over a hundred experts convened to seek solutions for both the inception and conclusion of the plastic lifecycle. Suomen ympäristökeskus / [Read more](#)

### INDIA: CLEANING AND CONSERVATION OF RIVERS

December 4 - Cleaning and rejuvenation of rivers is a continuous process. It is the responsibility of the States/Union Territories (UTs) and Local Bodies to ensure required treatment of sewage and industrial effluents to the prescribed norms before discharging into river and other water bodies, coastal waters or land to prevent and control of pollution therein. For conservation of rivers, this Ministry has been supplementing efforts of the States/UTs by providing financial and technical assistance for abatement of pollution in identified stretches of rivers in country through the Centrally Sponsored Scheme of National River Conservation Plan (NRCP) for rivers excluding Ganga and its tributaries and Central Sector Scheme of Namami Gange for Ganga river and its tributaries. Details of the on-going projects under NRCP and Namami Gange programme are at Annexure. In addition, sewerage infrastructure is created under programs like Atal Mission for Rejuvenation & Urban Transformation (AMRUT) and Smart Cities Mission of Ministry of Housing & Urban Affairs. PIB Gov. / [Read more](#)

### MEXICO: DELEGATION VISIT TO IOPC FUNDS IN LONDON



December 5 - The Deputy Minister of the Mexican Maritime Authority, Admiral José Luis Arellano, visited the Director on 4 December 2023. He was accompanied by the representative of Mexico to IOPC Funds' meetings, Minister for International Affairs, Norma Salomé Munguía Aldaraca, and other officials from the Mexican Embassy in London and the Maritime Authority in Mexico.

The Director took the opportunity to provide a general overview of the work of the IOPC Funds and the international liability and compensation regime in general.

IOPC Funds / [Read more](#)

### OMAN: OIL SPILL RESPONSE DRILL IN SOHAR PORT ON DEC 4-5

December 3 - Environment Authority (EA), in collaboration with National Emergency Management Committee, is set to conduct a national exercise called Nawras 2023 to combat oil pollution. The drill will take place in Sohar Port on Monday and Tuesday.

Numerous entities will join the initiative, including Ministry of Transport, Communications and Information Technology, Ministry of Agriculture, Fisheries and Water Resources, Ministry of Energy and Minerals, Ministry of Interior, Ministry of Health, the Maritime Security Centre, Royal Navy of Oman, Civil Aviation Authority, Royal Air Force of Oman, Civil Defence and Ambulance Authority, Royal Oman Police, Authority for Public Services Regulation, Petroleum Development Oman, and be'ah.

Muscat Daily / [Read more](#)

### USA: LATEST NEWS REPORTS FROM NOAA OR&R

December 4 – Please click on the links below to read the latest news.

#### **Third Session of the Intergovernmental Negotiating Committee to Develop an International Legally Binding Instrument on Plastic Pollution**

From November 13-19, 2023, over 1,900 participants—representing 161 governments as well as stakeholders from nongovernment organizations, academia, the private sector, the UN, and other international organizations—met in Nairobi, Kenya, for the third session of the Intergovernmental Negotiating Committee (INC3) to continue negotiations towards a new international legally binding instrument on plastic pollution.

#### **OR&R Provides Scientific Support to U.S. Coast Guard for Oil Spill off Louisiana Coast**

On November 16, 2023, OR&R and U.S. Coast Guard (USCG) response teams activated as reports came in regarding a leak in a pipeline in the Gulf of Mexico, off the coast of Plaquemines Parish, Louisiana. The source of the leak was reported to be at least 19 miles offshore of the Mississippi River Delta, near the pipeline system of Main Pass Oil Gathering, LLC (MPOG).

#### **New Publication Documenting Pollution Impacts to Resident Fish in the Lower Duwamish River, WA**

OR&R staff co-authored a [new publication\(link is external\)](#) in Science of the Total Environment which documents impacts to resident fish due to industrial contamination released into the Lower Duwamish River, Washington.

#### **The 2024 Marine Debris Calendar Is Now Available**

On November 30, the NOAA Marine Debris Program announced that our 2024 Marine Debris Calendar is now available for download!

#### **OR&R Partners on New Publication About Biological Responses of Pacific Herring Embryos to Crude Oil**

OR&R has a long-term partnership with the NOAA Northwest Fisheries Science Center (NWFS) to develop science for natural resource damage assessment and restoration. One area of collaborative research has focused on understanding the impacts of oil exposure on forage fish, such as Pacific herring, which are keystone species in coastal ecosystems.

#### **OR&R Share Assessment and Restoration Science at SETAC Conference**

The Society of Environmental Toxicology and Chemistry (SETAC) North America annual conference was held in Louisville, Kentucky in November 2023. Staff from OR&R's Assessment and Restoration Division (ARD) participated in the conference and contributed to a successful and engaging meeting.

#### **Marine Debris Program Supports DOC Business Roundtables at Asia Pacific Economic Cooperation Forum**

From November 13-17, global leaders met to attend the [Asia-Pacific Economic Cooperation \(APEC\) Forum\(link is external\)](#) in San Francisco, California. The NOAA Marine Debris Program California Regional Coordinator, Christy Kehoe, attended sustainability and business roundtables facilitated by the Department of Commerce (DOC) U.S. Commercial Service Northern California District of Export Council. The meetings were hosted by the Commonwealth of Australia and the Republic of the Philippines.

### USA: FEDERAL REGISTER: REQUEST FOR INFORMATION ON THE COAST GUARD IMPLEMENTATION OF A WESTERN ALASKA OIL SPILL PLANNING CRITERIA PROGRAM

December 5 - The Coast Guard's Office of Marine Environmental Response Policy (CG-MER) is seeking input from the public on the Coast Guard Implementation of a Western Alaska Oil Spill Planning Criteria Program. Input will assist in potentially developing a regulatory proposal to support the Coast Guard Authorization Act of 2022 requiring planning criteria for vessel response plans distinct to Western Alaska and Prince William Sound Captain of the Port Zones in the Federal Register (Docket No. USCG-2023-0824). The Coast Guard needs your input! Submit comments before the docket closes March 4, 2024.

[Federal Register : Request for Information on the Coast Guard Implementation of a Western Alaska Oil Spill Planning Criteria Program](#) Source - [USCG News](#)

### USA: BIDEN-HARRIS ADMINISTRATION ANNOUNCES 14 ORGANIZATIONS TO RECEIVE NEARLY \$7 MILLION TO RECRUIT AND TRAIN WORKERS FOR COMMUNITY REVITALIZATION AND CLEANUP PROJECTS AS PART OF INVESTING IN AMERICA AGENDA

December 8 - Today, the U.S. Environmental Protection Agency (EPA) announced the selection of 14 organizations to receive approximately \$7 million in grants for environmental job training programs across the country, as part of President Biden's Investing in America agenda. The grants through EPA's Brownfields Job Training Program will help recruit, train, and place workers for community revitalization and cleanup projects at brownfield sites across the country. This second wave of funding will build on the more than \$14 million in [Brownfields Job Training Grants the agency funded last year](#). EPA / [Read more](#)

### ISCO HAS LAUNCHED A FREE NEW BENEFIT FOR CORPORATE MEMBERS

**YOU CAN PLACE AN  
ADVERTISEMENT  
HERE**

For information contact  
Mike Watson at  
[spillcontrol@mwadigital.com](mailto:spillcontrol@mwadigital.com)

Last week ISCO launched a major new benefit in the form of FREE advertisements for our Corporate Members.

Each advertisement provides a “one click” facility that instantly displays the advertiser’s web page.

The ISCO Newsletter goes out every week to companies involved in servicing the pollution response industry in about 60 countries worldwide. Government agencies, oil companies, port authorities, and many others also use the Newsletter as a key source of information.

The new ads will be regularly be seen by a very large number of potential purchasers of the featured products and services.

The ads will be positioned alongside text in the ISCO website and an example is shown on this page.

Please try opening the website by clicking on the advertisement.



During an initial discussion, long time ISCO member FASTANK welcomed the new initiative and opportunity to participate in its launch.

Over time more advertisements will be added as members provide Mike Watson with copy and website links. Because readers can so easily view your website with one click it is recommended that the content of your free advertisement be kept bold and simple with a minimum amount of text. You can contact Mike at [spillcontrol@mwadigital.com](mailto:spillcontrol@mwadigital.com)

The option to place larger size advertisements at a reduced cost for ISCO members continues to be available.

### NEWS FROM ISCO MEMBERS – ANOTHER FREE ISCO MEMBERSHIP BENEFIT

*Corporate Members of ISCO can by submitting news about new activities, products and services in the “News from ISCO Members” section of the ISCO Newsletter. This is a free facility for Members. Given that the ISCO Newsletter has a large and highly targeted readership in over 60 countries, it’s a cost-effective way to promote your company. If you have some news you would like to share with readers of the ISCO Newsletter, send it to [John.McMurtrie@spillcontrol.org](mailto:John.McMurtrie@spillcontrol.org) Members who would like to place a regular advertisement in the ISCO Newsletter can also benefit from preferential discounted rates. For more info please contact Mike Watson at [mike@mwadigital.com](mailto:mike@mwadigital.com) He will be happy to help you.*

### LAMOR PERU AT FIELD WORKSHOP AT PARACAS PORT



Lamor Peru held a field workshop in Paracas Port as part of the ISPS annual forum held in Paracas Bay.

Over 120 attendees from ports, terminals, and oil facilities participated last week.

Paracas Bay is a natural harbor located on the southern coast of Peru, known for its rich biodiversity, historical significance, and proximity to the Paracas National Reserve.

Preserving Paracas Bay from oil spills is vital because it is a crucial ecological area, home to diverse marine life, and essential for the economic well-being of local communities.

Lamor was also invited to give a speech on lessons learned from oil spills in global scenarios. The presentation focused on the Mauritius oil spill event in 2020. LAMOR / [Read more](#)



## 8 WOMEN SEAFARERS GRADUATE

The Women in Maritime program, a partnership between Pacific Towing (PacTow), the Australian Government, Consort Express Lines and Swire shipping is pleased to recognise 8 young PNG women who have recently graduated as 'Officers of the Watch' in their pursuit of a seafaring career. The women, who were all cadets at PacTow, represent the second and third intakes of the Women in Maritime program under Australia Awards PNG.

The graduation ceremony took place on Monday 4 December aboard Steamships' pleasure cruiser 'Moresby Chief' on Fairfax Harbour. In addition to the graduates, the ceremony was attended by several VIP guests including the Australian High Commission's Minister Counsellor, Penny Morton, Australia Awards PNG Program Director, Rebecca Gitsham, Swire Shipping General Manager – Pacific, Randy Selvaratnam, and Steamships Corporate Affairs General Manager, Vele Rupa.

In congratulating the new Officers of the Watch, Mr. Rupa stressed the significance and value of the partnership between Steamships, the Australia Awards PNG programme, and Swire Shipping.

"Together we are not only fast tracking the careers of young female seafarers, but we are also strengthening PNG's maritime sector which plays a crucial role in driving PNG's development. Investing in the Women in Maritime programme is an investment Steamships is delighted to have committed to."

The recent graduates listed below are qualified to form part of the leadership team of future vessels they work on, and as such they will oversee lower ranking deck and engine crew. Thus, the eight new Officers of the Watch are poised to make vital contributions to further professionalising PNG's shipping and marine services sector

- Naomi Erowa · Melanie Yambun
- Karen Karih · Katrina Komboi
- Carol Wallan · Eunice Tuwe
- Make Wania · Debbie Aina



In 2021, the Women in Maritime program saw its pioneering 10 female cadets graduate as 'Officers of the Watch'. These women are

all currently employed with PNG shipping companies. The eight latest graduates will see the program having successfully trained 18 female cadets as Officers of the Watch, encouraging more females to pursue a career within the maritime industry.

PacTow General Manager, Neil Papenfus describes the Women in Maritime program as "a pioneering initiative that is helping train PNG's next generation of seafaring professionals." He says that "the new Officers of the Watch will help alleviate the problem of workforce shortages in PNG's maritime sector, and that their skills and knowledge will benefit PNG for decades to come."

Scholarship holders in the Women in Maritime program receive both classroom and practical training. The practical training comprises an onshore component, as well as a year of critical sea time. The women's PNG sea time is on PacTow vessels, but more importantly, also on sister company Consort Express Lines' vessels.

Significantly, Swire Shipping provides the cadets with extremely valuable international sea time on much larger, more sophisticated, and technologically advanced vessels. During their cadetships, the recent graduates visited ports in Singapore, Vietnam, Australia, New Zealand, and Thailand on Swire Shipping vessels.

To date, 34 women have been awarded a scholarship as either a Deck or Engine cadet. A further six women will commence the program in 2024.

PacTow delivers excellent, reliable, and safe marine services through PNG and the broader region. A well-maintained fleet, as well as a dedicated and exceptionally trained team underpin the company's ongoing expansion and success.

PacTow is part of a larger sea and land logistics group wholly owned by Steamships Limited.

To learn more about PacTow including its training and gender equality initiatives: [www.pacifictowingmarineservices.com](http://www.pacifictowingmarineservices.com).

For additional information please contact: · Neil Papenfus: (+675) 7200 1107 · Linda Van Leeuwen: (+61) 40799489

### A COLUMN CREATED BY DR. MERV FINGAS, MEMBER OF ISCO COUNCIL FOR CANADA



This is part of a weekly column which provides the references and abstracts of new peer-reviewed scientific publications on oil spills. These references are selected on the basis of those papers that provide new insights into the fate, effects and control of oil spills. Readers may choose to obtain the full publications and to do so, one of three methods is suggested; contact your library, search the internet with the DOI (digital object identifier) provided, or search the internet for the exact title. These are given in the order of likely success in obtaining the article. Merv Fingas, ISCO Colleague.

#### 273 Investigation of the Effects of Dioctyl Sulfosuccinate on the Photodegradation of Benzo[a]Pyrene in Aqueous Solutions under Various Wavelength Regimes

Santana A.M., Arif S., Evteyeva K., Barbosa F., Jr., Campiglia A.D.

(2023) *Molecules*, 28 (15), art. no. 5797,

DOI: 10.3390/molecules28155797

**ABSTRACT:** Due to the relatively high concentrations of polycyclic aromatic hydrocarbons (PAHs) in oil samples, oil spills in aquatic ecosystems release significant amounts of PAHs. Although remediation efforts often take place during or immediately after an oil spill incident, a portion of the released PAHs remains in the body of water. A natural phenomenon resulting from the direct exposure of PAHs to sunlight is photodegradation. This article investigates the effect of dioctyl sulfosuccinate (DOSS) on the photodegradation of benzo[a]pyrene (BaP), the most toxic PAH in the priority pollutants list of the US Environmental Protection Agency (EPA). DOSS is a surfactant typically used in the remediation of oil spills. Three lamps with maximum emission wavelengths at 350 nm, 419 nm, and 575 nm were individually and simultaneously used to irradiate aqueous solutions of BaP in the absence and the presence of DOSS. When irradiated with the 419 nm lamp or the 575 lamp, BaP showed no photodegradation. Upon irradiation with the 350 nm lamp and with the simultaneous use of the three lamps, the photodegradation of BaP followed first-order kinetics. Independent of the irradiation wavelength, the presence of DOSS increased the half-life of BaP in the aqueous solution. In the case of the 350 nm lamp, the rate constant of photodegradation in the absence and the presence of DOSS varied from  $(3.79 \pm 0.97) \times 10^{-3} \text{ min}^{-1}$  to  $(1.10 \pm 0.13) \times 10^{-3} \text{ min}^{-1}$ , respectively. Under simultaneous irradiation with the lamps, the rate constant of photodegradation varied from  $(1.12 \pm 0.35) \times 10^{-3} \text{ min}^{-1}$  (no DOSS) to  $(3.30 \pm 0.87) \times 10^{-4} \text{ min}^{-1}$  (with DOSS). Since the largest rate constants of photodegradation were observed in the absence of DOSS, the longer half-lives of BaP in the presence of surfactant were attributed to the incorporation of PAH molecules into the DOSS micelles.

#### 274. Double-plume Lagrangian particle tracking model and its application in deep water oil spill

Ye X.-W., Niu X.-J., Jiang J.

(2023) *Journal of Hydrodynamics*, 35 (3), pp. 571 - 581,

DOI: 10.1007/s42241-023-0043-x

**ABSTRACT:** Due to the density stratification of sea water, the dispersed oil droplets and gas bubbles with small diameters, as well as the dissolved components, may remain in some specific depths. The double-plume Lagrangian particle tracking model for bubbly plumes in vertical density stratified environments is improved and applied to predict the underwater pollutants in a blowout. This model considers the different properties and dissolution processes of components in crude oil and focuses on their behavior and stratification differences in the plume. The crude oil components are divided into several groups and the dissolution of oil and gas is also considered. The model is applied to simulate the “Deepwater Horizon” oil spill accident in the Gulf of Mexico in 2010. The results show several enrichment layers of oil and gas at different depth and the differences in concentration between components, which corresponds to the distribution of petroleum pollutants in the in-situ observation.

#### 275. Performance of European cross-country oil pipelines

Cech M., Armstrong J., Guijt W., Haskamp A., Huidobro Barrio I.

(2023) *CONCAWE Reports*, (6), pp. 1 - 73,

**ABSTRACT:** ConcaWE has collected 51 years of spillage data on European cross-country oil pipelines. At over 35,000 km the current inventory covered by the ConcaWE survey includes the majority of such pipelines in Europe, transporting some 650 million cu m/yr of crude oil and oil products. The performance of these pipelines in 2021 and a full historical perspective since 1971 is discussed. The performance over the whole 51 years was analyzed in various ways, including gross and net spillage volumes, and spillage causes grouped into five main categories: mechanical failure, operational, corrosion, natural hazard, and third party. The rate of use of in-line inspection tools is considered. A total of four spillages were reported for 2021, two of which were theft-related. The other two incidents corresponded to 0.06 spillages/1000 km of line, well below the five-year average (0.10) and the long-term running average of 0.43 spillages/1000 km/yr, which has been steadily decreasing over the years from a value of 1.1 in the mid-70s. One incident was

linked to external corrosion, and the other one to a natural hazard (flooding). There were no fires, fatalities or injuries connected with these spills.

### 276. Environmental and health risks assessment of n-alkanes and BTEX in Eze Iyi River at oil spill site in Isuikwuato, Abia State, Nigeria

Ibeto C., Onyekachi O., Aju E.

(2023) Environmental Monitoring and Assessment, 195 (6), art. no. 717,

DOI: 10.1007/s10661-023-11275-w

**ABSTRACT:** The environmental and health risks of n-alkanes and benzene, toluene, ethylbenzene, and xylene (BTEX) in Eze-Iyi River at Isuikwuato oil spill site were evaluated. The water samples (60) were collected from upstream and downstream during the dry and rainy seasons. Concentrations of n-alkanes and BTEX were determined using a gas chromatograph coupled with a flame ionization detector. The percentage recovery of 87.3% and 92.0% was obtained for n-alkanes and BTEX in the water sample. The environmental risk analysis for n-alkanes and BTEX showed 80% of the water samples had a ratio greater than 1 indicating environmental risk in the area. Hydrocarbon source identification using biomarkers indicates that the n-alkane (nC16) dominant during the dry and rainy seasons was from anthropogenic/biogenic source, while nC14 and nC17 were from microbial and marine algae biogenic sources, respectively. The benzene levels in 100% (downstream) and 80% (upstream) of samples in the dry season and 40% (upstream) and 100% (downstream) of samples in the rainy season were above the WHO permissible limit of 0.01 mg/L for drinking water. The health risk index of n-alkanes during the dry season for children (upstream) was greater than 1 signifying adverse health risk. Therefore, consumption of water from the river should be discouraged and routine monitoring by regulatory authorities maintained to checkmate the build-up of BTEX and n-alkanes.

### 277. Tracking the early signals of crude oil in seawater and plankton after a major oil spill in the Red Sea

Kottuparambil S., Ashok A., Barozzi A., Michoud G., Cai C., Daffonchio D., Duarte C.M., Agusti S.

(2023) Environmental Science and Pollution Research, 30 (26), pp. 69150 - 69164,

DOI: 10.1007/s11356-023-27111-0

**ABSTRACT:** Understanding the immediate impacts of oil spills is essential to recognizing their long-term consequences on the marine environment. In this study, we traced the early (within one week) signals of crude oil in seawater and plankton after a major oil spill in October 2019 in the Red Sea. At the time of sampling, the plume had moved eastward, but we detected significant signs of incorporation of oil carbon into the dissolved organic carbon pool, resulting in a 10–20% increase in the ultraviolet (UV) absorption coefficient ( $a_{254}$ ) of chromophoric dissolved organic matter (CDOM), elevated oil fluorescence emissions, and depletion of the carbon isotope composition ( $\delta^{13}C$ ) of the seawater. The abundance of the picophytoplankton *Synechococcus* was not affected, but the proportion of low nucleic acid (LNA) bacteria was significantly higher. Moreover, specific bacterial genera (*Alcanivorax*, *Salinisphaera*, and *Oleibacter*) were enriched in the seawater microbiome. Metagenome-assembled genomes (MAGs) suggested that such bacteria presented pathways for growing on oil hydrocarbons. Traces of polycyclic aromatic hydrocarbons (PAHs) were also detected in zooplankton tissues, revealing the rapid entry of oil pollutants into the pelagic food web. Our study emphasizes the early signs of short-lived spills as an important aspect of the prediction of long-term impacts of marine oil spills.

### 278. Development and Analysis of a Distributed Leak Detection and Localisation System for Crude Oil Pipelines

Ahmed S., Le Mouël F., Stouls N., Lipeme Kouyi G.

(2023) Sensors, 23 (9), art. no. 4298,

DOI: 10.3390/s23094298

**ABSTRACT:** Crude oil leakages and spills (OLS) are some of the problems attributed to pipeline failures in the oil and gas industry's midstream sector. Consequently, they are monitored via several leakage detection and localisation techniques (LDTs) comprising classical methods and, recently, Internet of Things (IoT)-based systems via wireless sensor networks (WSNs). Although the latter techniques are proven to be more efficient, they are susceptible to other types of failures such as high false alarms or single point of failure (SPOF) due to their centralised implementations. Therefore, in this work, we present a hybrid distributed leakage detection and localisation technique (HyDiLLEch), which combines multiple classical LDTs. The technique is implemented in two versions, a single-hop and a double-hop version. The evaluation of the results is based on the resilience to SPOFs, the accuracy of detection and localisation, and communication efficiency. The results obtained from the placement strategy and the distributed spatial data correlation include increased sensitivity to leakage detection and localisation and the elimination of the SPOF related to the centralised LDTs by increasing the number of node-detecting and localising (NDL) leakages to four and six in the single-hop and double-hop versions, respectively. In addition, the accuracy of leakages is improved from 0 to 32 m in nodes that were physically close to the leakage points while keeping the communication overhead minimal.



## SCIENCE & TECHNOLOGY (

If you are interested in new technology you will find it useful to visit Technology Innovation News Survey at <https://clu-in.org/products/tins/> and Tech Direct at <https://clu-in.org/techdirect/archive/>

### A COMPREHENSIVE REVIEW ON THE NOVEL APPROACHES USING NANOMATERIALS FOR THE REMEDIATION OF SOIL AND WATER POLLUTION

This work critically reviews the pros and cons of each nanomaterial with a special focus towards novel approaches using green synthesised nanomaterials that are completely eco-friendly and hence preferred for the removal of various contaminants without producing harmful effects. However, some bottlenecks exist in fully implementing the green nanoparticles for Nanoremediation. Thus, the review discusses the limitations of green nanomaterials that need to be addressed soon to maintain environmental sustainability. Finally, this review presents opportunities for future work in assessing the eco-safety of each nanomaterial that boosts the further utilisation of nanotechnology in the sustainable remediation of contaminated soil and water. Science Direct / [Read more](#)

### NOVEL MINERAL PIEZOCATALYSTS OFFER INNOVATIVE APPROACHES FOR SOIL REMEDIATION

Polycyclic aromatic hydrocarbons (PAHs) removal in the soil environment is of great significance for repairing the long-term damaged ecosystem. However, the poor mass transfer process and low catalytic activity in most conventional methods lead to limited removal efficiency.

A team of scientists has constructed a gradient F-doping hydroxyapatite core-shell structure (HAP@FAP) with the coupling effect of flexoelectricity and piezoelectricity for degradation of PAHs in soil that provide innovative approaches for soil remediation. Their work was [published](#) in the journal *Industrial Chemistry & Materials*. Phys.Org. / [Read more](#)

## TRAINING COURSES

Training Course Providers – Please check entries below and advise editor on any necessary updates

### USEFUL LINKS

- **INTERNATIONAL – IMO E-LEARNING PLATFORM** [e-learning platform](#)
- **AUSTRALIA – AMOSC** - <https://amosc.com.au/training/>
- **AUSTRALIA & NEW ZEALAND – ALGA** - <https://landandgroundwater.com>
- **CHINA** - <http://www.sioetc.com>
- **EUROPE –** <https://www.emsa.europa.eu/newsroom/latest-news/item/3609-emsa-training-catalogue-2019.html>
- **FRANCE - CEDRE** - [https://wwz.cedre.fr/en/content/download/10912/file/CalendrierFormation2023\\_EN.pdf](https://wwz.cedre.fr/en/content/download/10912/file/CalendrierFormation2023_EN.pdf)
- **UK & WORLDWIDE – OIL SPILL RESPONSE LTD.** - <https://www.oilspillresponse.com/training/courses/>
- **UK & WORLDWIDE – BRIGGS ENVIRONMENTAL SERVICES LTD.** - <https://www.briggsmarine.com/services/training/>
- **UK & WORLDWIDE – AMBIPAR GROUP** <https://ambipar.com/uk/training/>
- **UK – NCEC HAZMAT ACADEMY** – [More info](#)
- **USA – TEXAS A&M UNIVERSITY – NATIONAL SPILL CONTROL SCHOOL** <https://www.tamucc.edu/research/nscs/>
- **USA – MPC, DETROIT** - <https://marinepollutioncontrol.com/services/training-and-compliance>
- **USA – ALLIANCE OF HAZARDOUS MATERIALS PROFESSIONALS** - [https://www.ahmpnet.org/events/event\\_list.asp](https://www.ahmpnet.org/events/event_list.asp)
- **CANADA - CONTAMINATED SITES HEALTH & SAFETY REFRESHER (8-HOUR HAZWOPER) – FROM ECONEXT –** [MORE INFO](#)
- **ONLINE – LLOYDS MARITIME ACADEMY – CERTIFICATE IN ENVIRONMENTAL MARITIME MANAGEMENT.** Starts on 24<sup>th</sup> January <https://informaconnect.com/certificate-in-maritime-environmental-management/>
- **ONLINE - LLOYDS MARITIME ACADEMY – CERTIFICATE IN MARINE POLLUTION PREVENTION & MANAGEMENT.** Starts on 14<sup>th</sup> March 2024 - <https://email.informaconnect.com/q/12ErXbQNGaNK08lQrkPeg62v/wv>

Members who would like to be listed here, please contact your editor – [john.mcmurtrie@spillcontrol.org](mailto:john.mcmurtrie@spillcontrol.org)

## UPCOMING EVENTS

TO VIEW UPCOMING EVENTS CLICK ON [HTTPS://SPILLCONTROL.ORG/UPCOMING-EVENTS/](https://spillcontrol.org/upcoming-events/)

To see ALL of the posted events you will need to click on “LOAD MORE” at the foot of each opened “upcoming events” page. Event organisers are requested to notify ISCO immediately if a listed event is cancelled or postponed. Your Editor does his best to keep the listing up-to-date but it should not be assumed that listed events have not been cancelled or postponed. It is recommended that you check with event organisers before finalising your attendance plans. Please advise the Editor if any of the entries require correction or updating. If you are holding an event you would like to be featured here, please send details to [John.mcmurtrie@spillcontrol.org](mailto:John.mcmurtrie@spillcontrol.org)

## UPCOMING EVENTS (CONTINUED)

The listings below give only very basic details – To get access to all information visit <https://spillcontrol.org/upcoming-events/>

### DECEMBER 2023

- **WEBINAR – OSRL – “Training, Exercises and Continuous Improvement”** 12<sup>th</sup> December, 1400-1500 GMT

### JANUARY 2024 & ONWARDS

- **UAE – International Conference on Environmental Pollution & Remediation, (ICEPR), Dubai, 15-16 February 2024**
- **AUSTRALIA – Alga – “Chlorinated Hydrocarbons Groundwater Fate & Transport Symposium”, Adelaide, 22-23 February 2024**
- **PORTUGAL – Economist – “11<sup>th</sup> Annual World Ocean Summit & Expo”, Lisbon, 11-13 March 2024**
- **GERMANY – “14<sup>th</sup> International Conference on Environmental Pollution & Remediation”, Berlin, August 25-27, 2024**
- **SPAIN & ONLINE – “14<sup>th</sup> International Conference on Environmental Pollution & Remediation, Barcelona, August 25-27, 2024**

**SOME OTHER INFO** - Recordings of past ExxonMobil OSR Knowledge Transfer Webinar Recordings – [Access and Download](#) UK & Ireland Spill Association Alternative Marine Fuels and their Implications For Spill Response Webinar is [available to watch on YouTube](#). All six of UK & Ireland Spill Association’s Webinar Series on the Wakashio Spill are also available to watch. [More info](#)

## UPDATES FROM EVENT ORGANISERS

### USA: CLEAN WATERWAYS 2024 – REGISTRATION NOW OPEN - CLICK ON LINKS BELOW

If you have leftover funds in your marketing budget from this year, use it to invest in your business for 2024 and secure participation at the [CLEAN WATERWAYS Conference](#), April 9-11 in Cincinnati, OH. We are accepting exhibit/ sponsorship applications and registration is open, with early bird discounts expiring at the end of January!

[TRACK PLANNING & PREPAREDNESS](#)   [PRELIMINARY AGENDA ANNOUNCED](#)   [2024 PRELIMINARY SESSION LINE-UP](#)

Registration has officially opened for the 2024 CLEAN WATERWAYS Conference, taking place at the Duke Energy Convention Center in Cincinnati, OH, April 9-11. [Registration information](#) April 9-11, 2024, Cincinnati, OH – “Incident Prevention & Response for Inland Regions & Waterways” [View the website](#)

The CLEAN WATERWAYS program is developed by a government/industry-based committee of approximately 50 professionals, and the committee is looking for leaders to help shape the conference. All abstracts submitted are reviewed for content and relevance by the committee and are selected by consensus

### USA: REGISTRATION NOW OPEN FOR IOSC 2024

[International Oil Spill Conference \(IOSC\)](#) in New Orleans, May 13-16, 2024

Registration has officially opened for the International Oil Spill Conference (IOSC), May 13-16, 2024 at the New Orleans Convention Center in New Orleans, LA USA.

Meet Dr. Leonard Marcus, IOSC 2024 Keynote Speaker. Join us, May 13 - 16, 2024 in New Orleans, LA for the 2024 International Oil Spill Conference (IOSC) and be inspired by our opening keynote speaker, Dr. Leonard Marcus. [Read about Dr. Marcus](#)

[Why are Sponsorships at IOSC So Valuable?](#) Click to read more

IOSC provides a vital forum for professionals from the international response community, private sector, government, and non-governmental organizations to come together to tackle the greatest challenges facing us with sound science, practical innovation, social engineering and imagination. Mark your calendars and start planning your trip to join over 1,500 attendees from over 50 countries, representing government agencies, contractors, researchers, industry, and other stakeholders as they exchange ideas and lessons learned from actual spill responses and research around the world.

**Learn More about IOSC 2024** Be sure to follow IOSC on [Facebook](#), [Twitter](#), and [LinkedIn](#) for updates and announcements about #IOSC2024. Please contact [registration@iosc.org](mailto:registration@iosc.org) for questions or additional information. Interested in exhibiting or sponsorship? Please reach out to: [exhibits@iosc.org](mailto:exhibits@iosc.org)

## CONTRACTS, TENDERS AND BUSINESS OPPORTUNITIES

### INTERNATIONAL OPEN TENDER NOTIFICATIONS

This is a subscription service. <https://www.tender247.com/keyword/oil+spill+tenders+global>

### OTHER OPPORTUNITIES: USA & EUROPE

US Government solicitations are frequently posted in Technology Innovation News Survey <https://clu-in.org/products/tins/>

## CONTRACTS, TENDERS AND BUSINESS OPPORTUNITIES (CONTINUED)

US Federal Contract Opportunities are posted at <https://clu-in.org/Federal-Contract-Opportunities>  
European Maritime Safety Agency invitations to tender are often posted in The EMSA Newsletter at -  
<https://www.emsa.europa.eu/newsroom/newsletters.html>

ISCO Members can post requests for submission of invitations to tender for supplies / services in this section. The ISCO Newsletter is circulated to nearly 3,000 registered subscribers in 60 countries worldwide and represents a well targeted audience for sourcing invitations to tender. Send requests to the Editor – [john.mcmurtrie@spillcontrol.org](mailto:john.mcmurtrie@spillcontrol.org)



# Marine Pollution Control Worldwide Problem Solvers Since 1968

<b>PLAN</b> Tactical Response Planning	<b>PROTECT</b> Monitoring and Plan Improvement
<b>PREPARE</b> Training, Drills and Exercises	<b>RESPOND</b> On Land and Sea

**Marine Pollution Control**  
+1 (313) 849-2333 - 24/hour  
[www.MarinePollutionControl.com](http://www.MarinePollutionControl.com)



**MPC IS OSRO #003**

[CLICK ON THE ABOVE ADVERTISEMENT FOR MORE INFORMATION](#)

## LINKS FOR OTHER PUBLICATIONS

TO VIEW LINKS FOR DOWNLOADING AND READING OTHER PUBLICATIONS PLEASE CLICK ON  
<https://spillcontrol.org/2021/10/19/links-for-downloading-and-reading-other-publications/>

As a service to its Members ISCO provides a listing of publications that may be of interest to our community. This page provides details and links for downloading more than 40 publications most of which can be accessed at no cost. This page is managed by Mike Watson  
[mike@mwadigital.com](mailto:mike@mwadigital.com)

## NEW PUBLICATIONS

**EUROPE: DECEMBER 2023 NEWSLETTER FROM EMSA** [Read the latest EMSA Newsletter](#)



Welcome to the December edition of the EMSA newsletter! In this edition: meet the new Chair and Deputy Chair of our Administrative Board! We have the latest on our new studies on hydrogen and wind propulsion as potential power sources for shipping plus new safety Guidance on battery energy storage systems on board ships. Plus, catch up on our series of webinars on the extension of the EU Emissions Trading Scheme to the maritime transport sector. Find out about the latest course from the EMSA Academy, this time on maritime cybersecurity, as well as a special training session for maritime professionals in the Polish maritime administration on new developments in IMS. And we've also got the latest on the most recent CISE workshop, this time on the Eastern Mediterranean sea basin.

### THE HANDBOOK OF GROUNDWATER ENGINEERING

This excellent, timely resource covers the field of groundwater from an engineering perspective, comprehensively addressing the range of subjects related to subsurface hydrology. It provides a practical treatment of the flow of groundwater, the transport of substances, the construction of wells and well fields, the production of groundwater, and site characterization and remediation of groundwater pollution. No other reference specializes in groundwater engineering to such a broad range of subjects. Its use extends to the engineer designing a well or well field to the engineer designing or operating a landfill facility for municipal or hazardous wastes, the hydrogeologist investigating a contaminant plume, the engineer examining the remediation of a groundwater pollution problem, the engineer or lawyer studying the laws and regulations related to groundwater quality, the scientist analyzing the mechanics of solute transport, the geohydrologist assessing the regional modeling of aquifers, the geophysicist determining the characterization of an aquifer, the cartographer mapping aquifer characteristics, and the practitioner planning a monitoring network. Z-Lib.io / [Read more](#)

### BIMCO'S HOLIDAY CALENDAR 2024

[Order now from Witherbys](#)

New for the 2024 edition are past cases and common pitfalls, adding to the usual worldwide laytime holidays and port working hours. First published in 1913, the BIMCO Holiday Calendar is recognised by the shipping industry as a trusted and unbiased source for holidays and working hours and is now an even better tool for planning, voyages, negotiating charter parties and avoiding disputes with counterparties. BIMCO / [Read more](#)

## INCIDENT REPORTS

### MARITIME ACCIDENT REPORTS FROM THE MARITIME BULLETIN

In the Maritime Bulletin, Mikhail Voytenko regularly advises on vessel abandonments, groundings and sinkings – several every week– but, unless there is an immediate and significant release of oil or chemicals, spillages are not reported. However, many of Mikhail's reports cover incidents that may have potential to cause pollution. To view all of his reports, visit <https://www.maritimebulletin.net/>

### ITALY: 15,000 TEU CONTAINER SHIP LOST CONTAINERS OVERBOARD IN ROUGH WEATHER

December 2 - An unidentified container ship lost 4 containers overboard in the morning Dec 2, while approaching Genova Italy, in rough weather. <https://www.maritimebulletin.net/>

### YEMEN: OIL PIPELINE IN S. YEMEN SABOTAGED BY UNIDENTIFIED GUNMEN

December 4 - A group of unidentified gunmen carried out an attack and sabotaged a crude oil pipeline in southern Yemen's oil-rich province of Shabwa, a government official said on Monday. The gunmen used explosives to bomb the main crude pipeline near the Jannah Hunt oil field on Sunday night, which has caused significant damage and resulted in a substantial crude oil spill, said the official who required anonymity. BigNewsNetwork / [Read more](#)

### VIETNAM: CARGO SHIP INTENTIONALLY GROUNDED AFTER DEVELOPING LIST

December 5 - Cargo ship CHINH QUYNH 19 with cargo of 3300 tons of stone, while en route from Nam Dinh to Dung Quat, developed list and understood, was intentionally grounded in Da Nang waters, Vietnam, As of Dec 5, the ship remained in the same position, AIS is on, authorities fear possible fuel oil spill. [www.maritimebulletin.net](http://www.maritimebulletin.net)

### USA: CALIFORNIA - NTSB: DRAGGED ANCHOR CAUSED SAN PEDRO BAY OIL SPILL

December 5 - The National Transportation Safety Board (NTSB) has called for new VTS safety measures after the anchor-drag incident that caused an oil spill off the coast of California in October 2021.

The spill released around 588 barrels of crude oil into San Pedro Bay and caused about \$160 million in damage, including cleanup costs. It was initiated when a container ship dragged anchor over an underwater pipeline in a storm eight months earlier. NTSB determined that the MSC Danit's anchor contacted and damaged the pipeline during a high wind event earlier in the year, and that stress fractures caused by the impact grew until the leak finally occurred. The Maritime Executive / [Read more](#)

## INCIDENT REPORTS (CONTINUED)

### USA: GULF OF MEXICO - US COAST GUARD RESPONDS TO OIL SPILL

December 6 - The U.S. Coast Guard said on Wednesday it was responding to an oil discharge near the Main Pass Oil Gathering (MPOG) Co's pipeline system in the Gulf of Mexico, while the main pipeline and several surrounding ones remained shut in.

"The reported sheen is being investigated and has not been confirmed to be associated with the November 16 observed initial discharge," the Coast Guard said. The Coast Guard had not yet identified any damage or indication of a leak after surveying the entire length of the pipeline along with 22.16 miles (36 km) of surrounding pipelines. Remote-controlled devices and divers continued to reassess the pipelines. Reuters / [Read more](#)

### SINGAPORE: DARK FLEET TANKER RUNS AGROUND NEAR SINGAPORE

December 7 - The "dark fleet" tankers that carry oil from Russia, Venezuela and Iran are a serious inconvenience for Western sanctions enforcement, but for maritime stakeholders and coastal states, they are a serious safety and pollution risk. The average age of these vessels trends high, especially in the Venezuelan and Iranian trades, where the average ship is 20 years old - the typical retirement point for respectable tankers. Aging equipment and light regulation tend to produce accidents, and dark fleet tankers do get into trouble - like the tanker Liberty, which went aground in the Strait of Malacca last weekend. The Liberty is a Cameroon-flagged Suezmax of 23 years of age, and according to TankerTrackers.com, she is carrying a cargo of one million barrels of Venezuelan fuel oil. AIS data confirms that Liberty has a "dark fleet" trading pattern. The Maritime Executive / [Read more](#)

December 8 - UPDATE: Tanker is loaded with about 1 mill barrel of Venezuelan oil and allegedly, is part of notorious "dark fleet", engaged in transportation of Russian and Venezuelan oil. No change in ship's status, she's still aground, understood salvage under way. [www.maritimebulletin.net](http://www.maritimebulletin.net)

### SPAIN: POST-PANAMAX LOST 6 CONTAINERS IN THE ATLANTIC

December 8 - Container ship TOCONAO probably lost 6 containers SW of Vigo Spain, Atlantic, at around 0500 UTC Dec 8 – track and timeline coincide with reported spotted containers. The ship continues voyage from Algeciras to Rotterdam. Ship's ID not yet confirmed. [www.maritimebulletin.net](http://www.maritimebulletin.net)

## ANNOUNCING NEW PRODUCTS & SERVICES

Disseminating news about new technical developments is of value to our community. Corporate Members are invited to contribute articles. Corporate Members of ISCO can benefit from submitting news about new products and services in the "News from ISCO Members" section of the ISCO Newsletter. This is a free facility for Members. Given that the ISCO Newsletter has a large and highly targeted readership in over 60 countries, it's a cost-effective way to promote your company.

Because the ISCO Newsletter is initially prepared as a Word document it's essential that text and photographs submitted can be easily copied and pasted into the preliminary draft of the newsletter. Please note that submissions must also comply with ISCO's editorial policy. Submissions should not include photos that cannot be used without permission of copyright owners.

1. The Editor has sole discretion over what is accepted for publication
2. The Editor reserves the right to edit press releases
3. Information in press releases must be factual and free from sales hype and exaggerated claims
4. Subject matter of press releases must be relevant to the interests of the spill response community
5. Space availability for printing press releases is limited and they should be kept short
6. If a press release is too long only part of it will be printed but a link can be included for downloading its entirety
7. Links for downloading additional information or viewing video material can be included
8. Depending on space availability releases may be included in the next newsletter / held over for inclusion in a later issue

---

Legal disclaimer: Whilst ISCO takes every care to ensure that information published in this newsletter is accurate unintentional mistakes can occur. No liability for consequences of errors is accepted but, if an error is brought to our attention, a correction will be printed in a following issue of this newsletter. Products and services featured in the ISCO Newsletter and/or the ISCO website, including the International Directory of Spill Response Supplies and Services, have not been tested, approved or endorsed by ISCO. Any claims made by suppliers of products or services are solely those of the suppliers and ISCO does not accept any liability for their accuracy. It should not be assumed that views and opinions expressed in linked reports, articles and other content reflect the views of the organization. Subscription is subject to acceptance of ISCO's Terms and Conditions as published on the website [www.spillcontrol.org](http://www.spillcontrol.org) and your acceptance of ISCO's Data Protection and Privacy Policy.

---